



REPLACEMENT SHEET

FIG 2

Bandwidth/modulation tradeoffs

Downstream assume 64AQM and 6 MHz as reference
required S/N for 10^{-6} 27 21.5 13.5
Modulation 64 QAM 16 QAM QPSK

Bandwidth			
6000	0.0	5.5	13.5
2000	4.8	10.3	18.3
1000	7.8	13.3	21.3

Up Stream assume 16 QAM and 2 MHz as reference
required S/N for 10^{-6} 21.5 13.5
Modulation 16 QAM QPSK

Bandwidth		
3200	0.0	8.0
1600	3.0	11.0
800	6.0	14.0
400	9.0	17.0
200	12.0	20.0

Bandwidth/modulation tradeoffs

downstream assume 64QAM and 6 MHz as reference

required S/N for 10^{-6}

Modulation

	27	21.5	13.5
	64 QAM	16 QAM	QPSK
Downstream			
6000	0.0	5.5	13.5
2000	4.8	10.3	18.3
1000	7.8	13.3	21.3

Up Stream assume 16 QAM and 2 MHz as reference

required S/N for 10^{-6}

Modulation

	21.5	13.5
	16 QAM	QPSK
Bandwidth		
3200	0.0	8.0
1600	3.0	11.0
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